COMPENSATION FOR VERTEBRATE PEST DAMAGE

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ABSTRACT: Compensation for wildlife damage to private property is recognized by the Alberta government as a short-term reimbursement to the property owner and a long-term investment in wildlife conservation. In 1978 the Alberta Problem Wildlife Committee recommended that problem wildlife management policies and programs should contain three basic factors: PREVENTION, COMPENSATION and CONTROL or ANIMAL REMOVAL. These should be incorporated whenever possible in dealing with a particular species of problem wildlife or vertebrate pest. The Alberta government approved this philosophy as a reflection of traditional rights and fair treatment of landowners and as the basis for future programs. Compensation is paid for four types of confirmed wildlife damage: big game or game bird damage to cereals and forage; waterfowl damage to cereal crops; predator damage to livestock; and bear damage to bee equipment. The organization and operation of each of these programs are discussed in some detail.

INTRODUCTION

Compensation for wildlife damage to private property has been recognized as a practical philosophy for many years in Alberta and other parts of Canada. It is part of the traditional rights and fair treatment of landowners fought for by farm organizations and supported by departments of agriculture. In recent years compensation has also been recognized by most wildlife biologists, managers and departments as an important part of wildlife conservation, particularly in habitat maintenance and improvement.

Most big game and bird game species in Alberta are located in the agricultural region of the province and are raised, fed and tolerated by farmers. The cooperation of landowners is necessary for wildlife food and shelter, as well as provision of access to wildlife on private property. The conservation and recreation benefits are enjoyed by all society. It is logical, sensible and economical for society to pay for significant damage caused by wildlife that is public property protected by law. This will be even more important in the future as increased costs of land and food production force farmers to increase efficiency and use marginal lands, which are often the sloughs and wood lots favored by wildlife.

The situation may differ somewhat in the western U.S.A. where large areas of public land support wildlife and the goodwill of landowners may be less important in the retention of wildlife populations and habitat. I understand that few of the western states pay compensation for problem wildlife damage. This may be due in part to government resistance toward more subsidies or handouts vs. earned compensation or the payment of appraised and validated damage claims. We have similar difficulties in developing effective administrative and operational mechanisms for appraising damage and sharing of program costs. However, in general, for the three prairie provinces, compensation for problem wildlife damage has government and public support. Alberta has in recent years advanced in terms of compensation programs and other mechanisms of problem wildlife management to resolve major wildlife-human conflicts.

The Alberta Problem Wildlife Committee was established in 1974 to coordinate the ofttimes conflicting interests of Alberta Wildlife and Alberta Agriculture. The Committee recommended in 1978, and the government accepted, the philosophy that, in the management of each problem wildlife species, we incorporate the best combination of the three factors of Prevention, Compensation and Control or Animal Removal. Therefore, I will refer to these other two factors in reviewing compensation programs as important parts of the package. We need to develop an integrated or total approach in problem wildlife management as we have in the control of insect, plant disease and weed pests (Gurba 1981).

In Alberta, compensation is paid for four types of problem wildlife damage:

WILDLIFE DAMAGE FUND (WDF)

The WDF was established in 1961 to provide partial compensation for damage to cereal and forage crops by big game and bird game depredations (Hunter and Gunson 1980). During 1961-63 the program was basically insurance with a 5% premium paid by farmers, supplemented with a one dollar surcharge on all hunting licenses called a wildlife certificate. The insurance program was not readily accepted by farmers and few benefits were paid out in the first three years. In 1964 the farmer premium was dropped and funding has continued through the wildlife certificate which increased from $1.00 to $3.00, supplemented when necessary by public funds. The WDF is used for habitat improvement work and partial compensation for wildlife damage.

Maximum coverage was $15.00 per acre during 1964-72, increasing to $25.00 in 1973 or 75% of the commercial value of the destroyed crop, whichever is less. Crops covered include cereals, oilseeds, forage, field corn, peas and buckwheat, either standing or in swath or stook in the field, but does not include crops in stacks or stored in granaries or wild crop on grazing lands.

The problem of elk (Cervus elaphus) and deer (Odocoileus virginianus and O. hemionus) damage to hay stacks has been considered for compensation. At present it is felt that preventive mechanisms are available through fencing. Alberta Wildlife provides fencing material for farmers and ranchers who will install and maintain permanent fenced stack yards.

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Most crop damage in Alberta is caused by migratory waterfowl which is reviewed under Waterfowl Crop Damage Prevention and Compensation. The other major species causing crop damage are ungulates and black bear (Ursus americanus). Damage has varied over the years and can be heavy on overwintered crops or during severe winters. Compensation for crop damage during 1973-79 was paid on 677 non-waterfowl claims; 369 of these were ungulates, 160 were bear and 148 were combinations of ungulate, bear and waterfowl damage.

During 1973-79 ungulate damage claims varied from $3,303 in 1976 to $80,285 in 1974, and for the 7 years the 369 total claims covered 14,218 acres and cost $172,974. Also during 1973-79 black bear claims varied from $2,665 in 1974 to $17,479 in 1976, totaling 160 approved claims covering 3,321 acres and costing $49,952 in compensation payments (Table 1).

Table 1. Summary of ungulate and black bear claims approved under the Wildlife Damage Fund in Alberta, 1973 - 79. (From Hunter and Gunson, 1980.)

	1973	1974	1975	1976	1977	1978	1979	TOTAL 1973-79
UNGULATE								
Claims	91	180	13	10	18	30	27	369
Acres	4,040	6,005	1,386	258	609	911	1,009	14,218
$ Loss	33,386	80,285	5,653	3,303	5,418	17,782	27,148	172,974
BEAR								
Claims	15	9	23	61	34	6	12	160
Acres	896	177	481	975	613	67	112	3,321
$ Loss	6,920	2,665	4,688	17,479	12,017	2,793	3,389	49,952

WDF policy is administered by Alberta Wildlife which provides funding to the Alberta Hail and Crop Insurance Corporation (AHCIC) for the operation of the WDF Program. AHCIC carries out appraisal of crop damage through its crop insurance adjusters and pays approved compensation claims to farmers. To get inspection of wildlife crop damage, a farmer pays a $25.00 appraisal fee. This helps to eliminate frivolous cases. Hunters and sportsmen support the program and most farmers are satisfied. The $25.00 maximum compensation per acre no longer covers basic production costs and is under review.

WATERFOWL DAMAGE PREVENTION AND COMPENSATION PROGRAM

Waterfowl damage to cereal grain crops, especially on the Canadian prairies, has been a problem for many years. The Migratory Birds Convention Act protects migratory waterfowl in Canada, U.S.A. and Mexico but allows crop-damaging waterfowl to be shot out of season. Such a preseason shooting or damage permit was the farmer's only recourse until 1961 when a waterfowl depredation insurance program was initiated in Alberta. Damage permits are still used as a control measure for damaging waterfowl, ungulates, bear and other problem wildlife, along with preventive measures such as lure-crops and bait-sites, scarecrows, scare-cannons, etc. (Weaver 1980).

The insurance program was not too successful and few benefits were paid out during 1961-63. Therefore, in 1964 farmers' premiums were discontinued and the Wildlife Damage Fund (WDF) was set up to fund the waterfowl depredation program. This compensation and prevention program is designed to reimburse farmers' cash costs of production, without preregistration or premiums. Funds come from wildlife certificate levies on all hunting licenses, and since 1972 from joint, approximate 50-50 funding by Federal and Provincial Governments. Compensation coverage has increased from $15.00 to $50.00 per acre and the cost of wildlife certificates has increased from $1.00 to $3.00 per hunting license (Alberta Government).

The Alberta Hail and Crop Insurance Corporation (AHCIC) administers the compensation program for Alberta Wildlife. AHCIC adjusters, trained in assessment of crop damage, carry out appraisals which are used as the basis for compensation payments. Most claims and payments are a result of damage by wild ducks and geese. Mean yearly payments for waterfowl damage during the 10 year period 1970-79 was $708,000, ranging from $256,000 in 1971 to $1,523,000 in 1977 (Hunter and Gunson 1980; Fig. 1).

Surveys showed that neither the preseason shooting permit nor the compensation program were adequate for handling waterfowl damage. A three-year experimental crop damage control program, initiated in 1970, indicated it was possible to prevent or reduce damage in areas suffering severe and recurring depredation. The use of undisturbed feeding sites containing a lure-crop or barley grain, combined with scaring activities in farmers' fields, was successful in manipulating waterfowl-feeding patterns over large areas. The damage control program has been expanded to 26 areas in Alberta where damage and compensation had been highest.

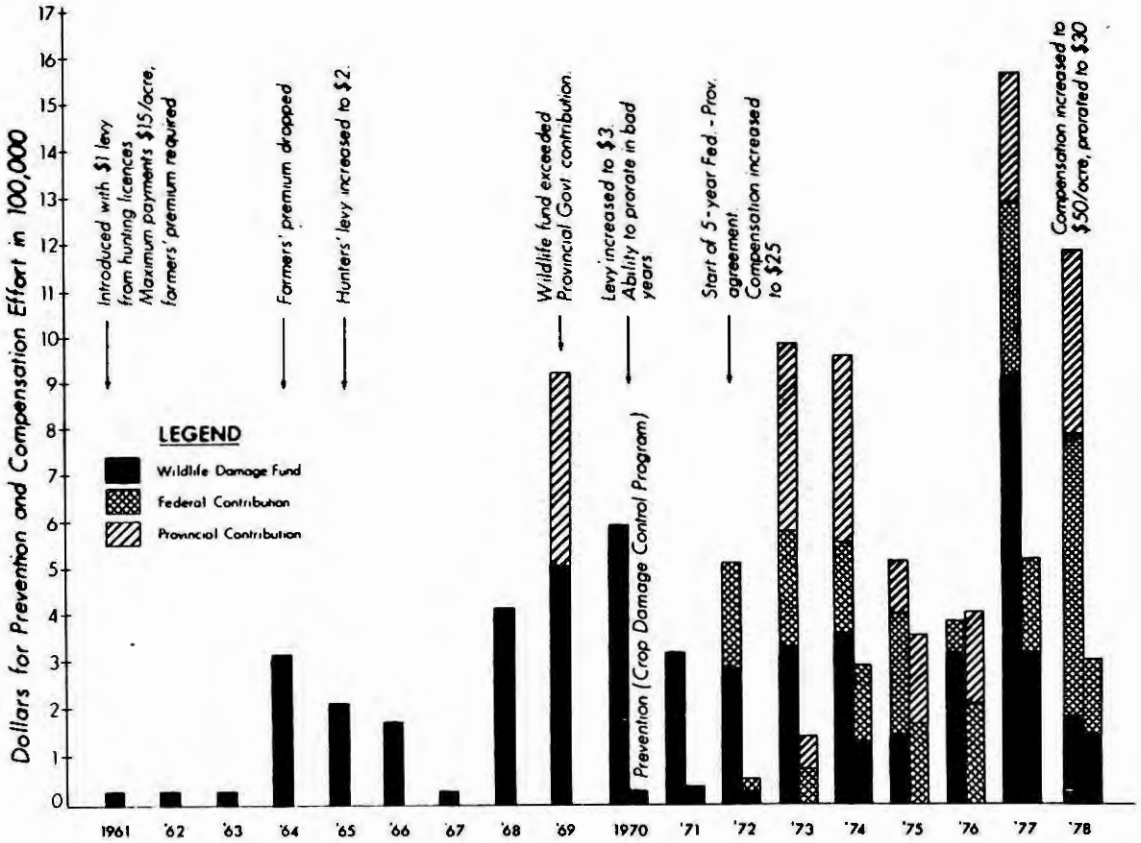

Fig. 1. Cost of Waterfowl Damage Compensation and Prevention Program in Alberta.

In 1972, a five year federal-provincial agreement was initiated with joint funding of both prevention and control programs. Annual agreements have been used since 1977. Prevention is favored by most farmers and provincial biologists but has not expanded due to restrictive federal budgets in recent years. There is discussion of future funding assistance from organizations promoting wetlands and more waterfowl. In the meantime, Canadian and American sportsmen have good hunting of waterfowl raised on the Canadian prairies. Since 1964, Alberta hunters have paid over $5 million into the WDF; Alberta farmers have benefited from over $9 million in compensation claims, and an estimated $6 million in saved crop due to the prevention program.

LIVESTOCK PREDATOR INDEMNITY PROGRAM (LPIP)

Alberta has a large population of cattle, sheep, swine and poultry. Livestock production in the foothills, parkland and the forest fringe has always suffered from predation especially by wolves, bears and coyotes. Prevention and control techniques are used but restricted by societal and environmental concerns. Alberta Agriculture developed a compensation program for confirmed livestock losses to predators in 1974, retroactive to 1972. Farmers making a significant portion of their income from livestock or poultry can claim losses over $100 in any calendar year at 80% of slaughter value. A committee composed of representatives from Agriculture, Wildlife and farm organizations establishes suitable formulae and reviews claims for indemnity. Committee decisions may be appealed through the Farmer's Advocate and the Minister of Agriculture.

Verification of predator kills was a problem at first since early investigation by an experienced officer is necessary. Fortunately, we had a small corp of regional predator specialists in Agriculture and problem wildlife officers in Wildlife in 1974. These 12 specialists helped train other government and municipal fieldmen in recognizing and determining valid predation cases. Today we have over 200 investigating officers, practicing veterinarians or other officials who can be called by any of our 45,000 livestock producers to investigate a predator kill and submit an investigator's report.

The Manual on Methods of Investigating Predation of Domestic Livestock by Roy and Dorrance is practical and useful in training and investigation of livestock predation. Investigating officers, directly or through the local pest control officer, advise on improvement of livestock management and the use of prevention and control measures to prevent and reduce further losses. As the LPIP became better known, the claims and compensation payments increased but have leveled off in recent years.

During the seven-year period 1975-81, there were 1,677 approved coyote damage claims, 688 wolf claims, 429 bear claims, and 335 damage claims due to other predators, for a total of 3,129 claims paid under LPIP (Table 2a). During this same period, there were 13,302 livestock and poultry lost to coyotes, 2,003 to bears, 2,244 to wolves, and 9,048 to other predators, for a total of 26,597 lost to all predators (Table 2b).

During 1975-81, compensation payments varied from $97,000 in 1976 to $270,700 in 1979, with $566,600 paid for coyote damage claims, $361,600 for wolf, $268,500 for bear, and $113,300 for other predators, for a total payment over the seven years of $1,310,000 (Table 2c). In summary, Alberta Agriculture has, over the last seven years, paid compensation of $1,310,000 on 3,129 validated claims for 26,597 livestock and poultry lost to predators.

Table 2a. Damage claims for predator inflicted losses of Alberta livestock.

SPECIES	1975**	1976	1977	1978	1979	1980	1981	TOTAL
Coyote	221	160	198	274	214	315	295	1677
Wolf	106	79	139	94	91	93	86	688
Bear	79	42	90	56	59	40	63	429
Others*	35	48	40	40	52	58	62	335
TOTAL	441	329	467	464	416	506	506	3129

* Includes feral dogs, cougar, mink, weasel, hawks, owls, etc.
** Includes retroactive claims for 1973 and 1974.

Table 2b. Alberta predator loss** indemnity program 1973-80.

SPECIES	Cattle	Calves	Sheep	Swine	Poultry	TOTAL
Coyotes	66	795	8,142	86	4,213	13,302
Bears	371	1,026	165	158	283	2,003
Wolves	689	1,277	188	28	62	2,244
Others*	51	113	462	39	8,383	9,048
TOTAL	1,177	3,211	8,957	311	12,941	26,597

* Feral dogs, cougar, mink, weasel, hawks, owls, etc.
** Includes only those losses validated by Gov't. investigators.

Table 2c. Compensation for predator inflicted livestock losses ($,000).

SPECIES	1975**	1976	1977	1978	1979***	1980	1981	TOTAL
Coyote	39.5	36.9	41.2	80.0	107.3	138.3	123.4	566.6
Wolf	43.3	29.8	45.2	52.4	85.1	49.1	56.7	361.6
Bear	24.4	25.3	44.4	32.1	58.2	40.7	43.4	268.5
Other*	6.0	5.0	8.2	13.0	20.1	32.3	28.7	113.3
TOTAL	113.2	97.0	139.0	177.5	270.7	260.4	252.2	1,310.0

* Includes feral dogs, cougar, mink, weasel, hawks, owls, etc.
** Includes retroactive payment for 1973 and 1974 loss claims.
*** Adjustment for increased livestock market values.

It is estimated that several times this amount of predator loss of livestock goes undetected or cannot be proven and validated to the satisfaction of government officers. However, farmers and ranchers and Alberta society in general consider LPIP a useful mechanism to compensate for significant predator-inflicted losses. Administrators and field staff consider LPIP a useful component of problem wildlife management, especially when used in combination with damage prevention and control.

BEAR DAMAGE COMPENSATION PROGRAM (BDCP)

Compensation for bear damage in beeyards is our most recent program, initiated in 1979. We have experienced more than 10 years of high bear population, especially in the Peace River region and in the northern parkland and forest areas. This same area also has the largest acreage of clovers, rapeseed

and other good bee forage and thus produces around 75% of Alberta's honey supply from some 130,000 hives. During the early 1970s, we experienced 200 to 400 bear strikes in beeyards annually, several hundred bears were shot each year by government bear crews, and beekeepers killed as many by whatever means possible.

The bear situation was serious, so Alberta Wildlife and Agriculture embarked on a program of bear and damage survey and testing of preventive and control mechanisms (Gunson 1975). Lithium chloride did not prove effective as a bear aversive agent but electric fences were successful. During 1975-78 we subsidized the cost of electric fencing material for beekeepers who would construct and maintain effective beeyard fences. Over 600 beeyards were fenced under this program and proved about 90% bear proof.

The subsidy program was discontinued once it was conclusively proven that electric fences were effective. The compensation program was developed in 1979 to supplement prevention and control measures. To be eligible, a beekeeping operation must be registered under the Alberta Bee Act, with a minimum of 40 active beehives and the beeyard must be enclosed by a proper operating electric fence.

Verification of bear damage is required for claims over $200, while claims under $200 must be notarized and accompanied by a photo of the bear damage. Compensation is paid for cumulative losses greater than $100 in a calendar year but not exceeding $5,000 per beekeeper. Bear damage is verified by Wildlife, Agricultural and Municipal officers. Claims are approved by a committee with two members from Alberta Agriculture, one from Alberta Wildlife and two beekeepers.

For 1979, there were only two damage claims approved for $1,023. During 1980, nine claims were approved for $7,262 compensation. For 1981, the BDCP committee has approved eight claims for approximately $6,000 and one claim requires further verification. The combination of preventive fencing and compensation for valid bear damage claims has taken considerable pressure off bears and problem wildlife management personnel.

DISCUSSION

The Alberta Problem Wildlife Committee is evaluating current programs and problems that require better resolution. We need a mechanism for compensating first-strike action by bears at beeyards without electric fencing in areas with no history of bear damage. Other situations of significant wildlife damage are beaver-flooded lands and ungulate depredation of stacked hay. We need to develop the best combination of damage prevention and control, and if compensation is provided, ensure that it does not replace proper farm management nor is subject to fraud or another form of marketing.

I believe that compensation is an important component of problem wildlife management on private land, and if used in combination with damage prevention and control, can help to resolve wildlife-human conflicts. Society needs to compensate landowners for significant wildlife damage since their support is essential for the retention of wildlife populations and habitat.

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